



The Johns Hopkins University Summit on Climate Change and Health

**Climate Change Adaptation Planning:
CDC's Climate-Ready Cities and States Initiative and Maryland
Public Health Strategy for Climate Change**

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Maryland's Climate Change Strategy

- Greenhouse Gas Reduction Plan
- Adaptation
 - Phase I: Sea-Level Rise and Coastal Storms
 - Phase II: Building Societal, Economic, and Ecological Resilience
 - **Maryland Public Health Strategy for Climate Change**

Key recommendations for communities*



Take action now to protect human habitat and infrastructure from future risks.



Minimize risks and shift to sustainable economies and investments.



Guarantee the safety and well-being of Maryland's citizens in times of foreseen and unforeseen risk.



Retain and expand forests, wetlands, and beaches to protect us from coastal flooding.



Give State and local governments the right tools to anticipate and plan for sea level rise and climate change.

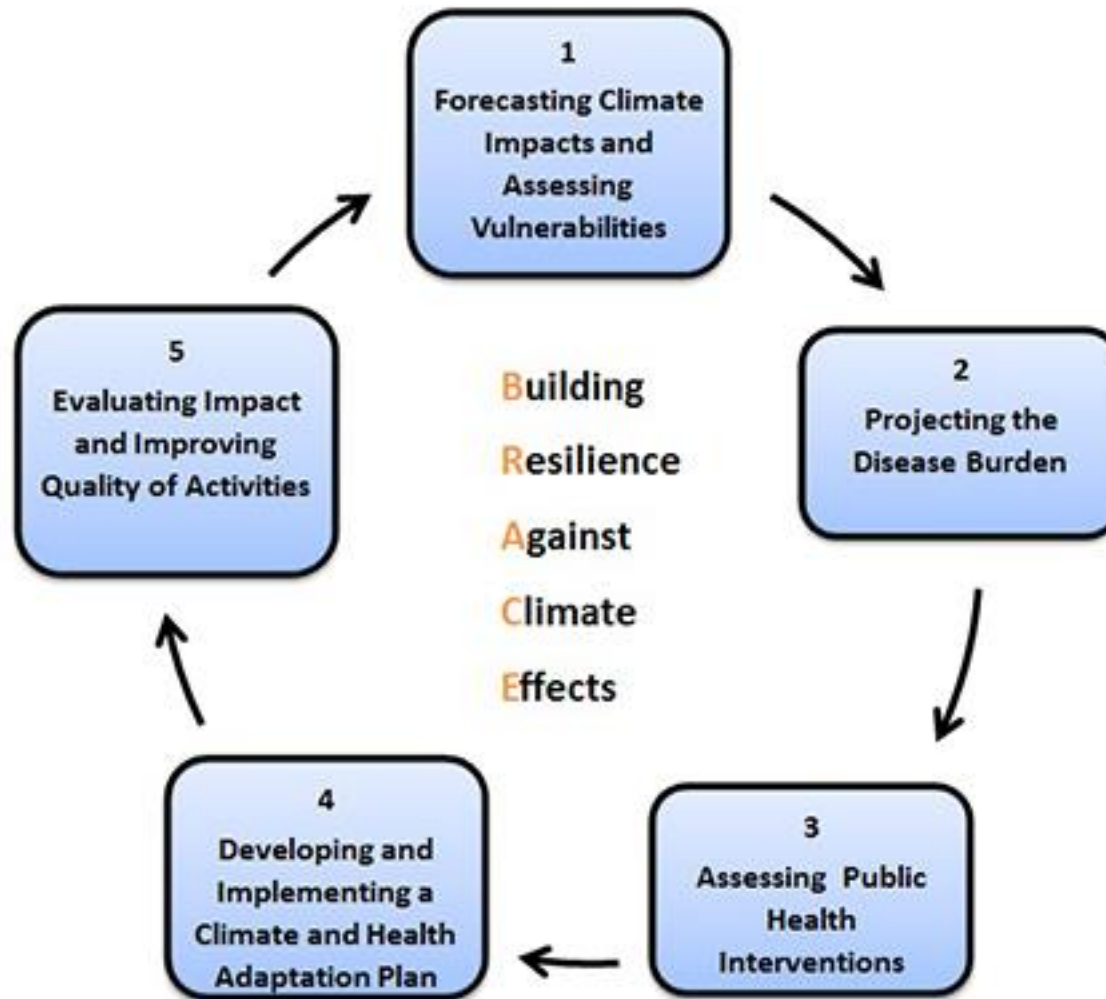
*Determined by the Maryland Commission on Climate Change



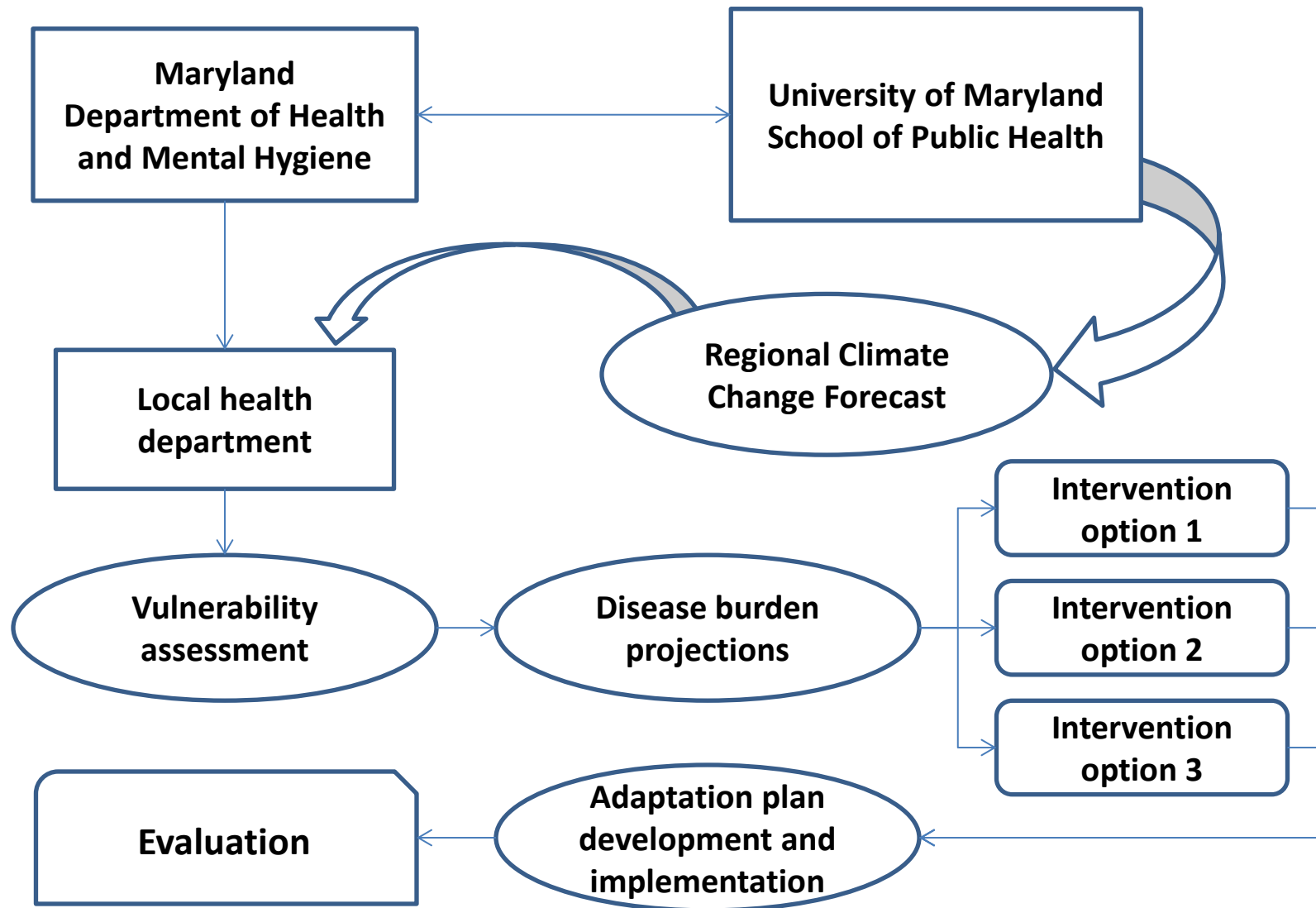
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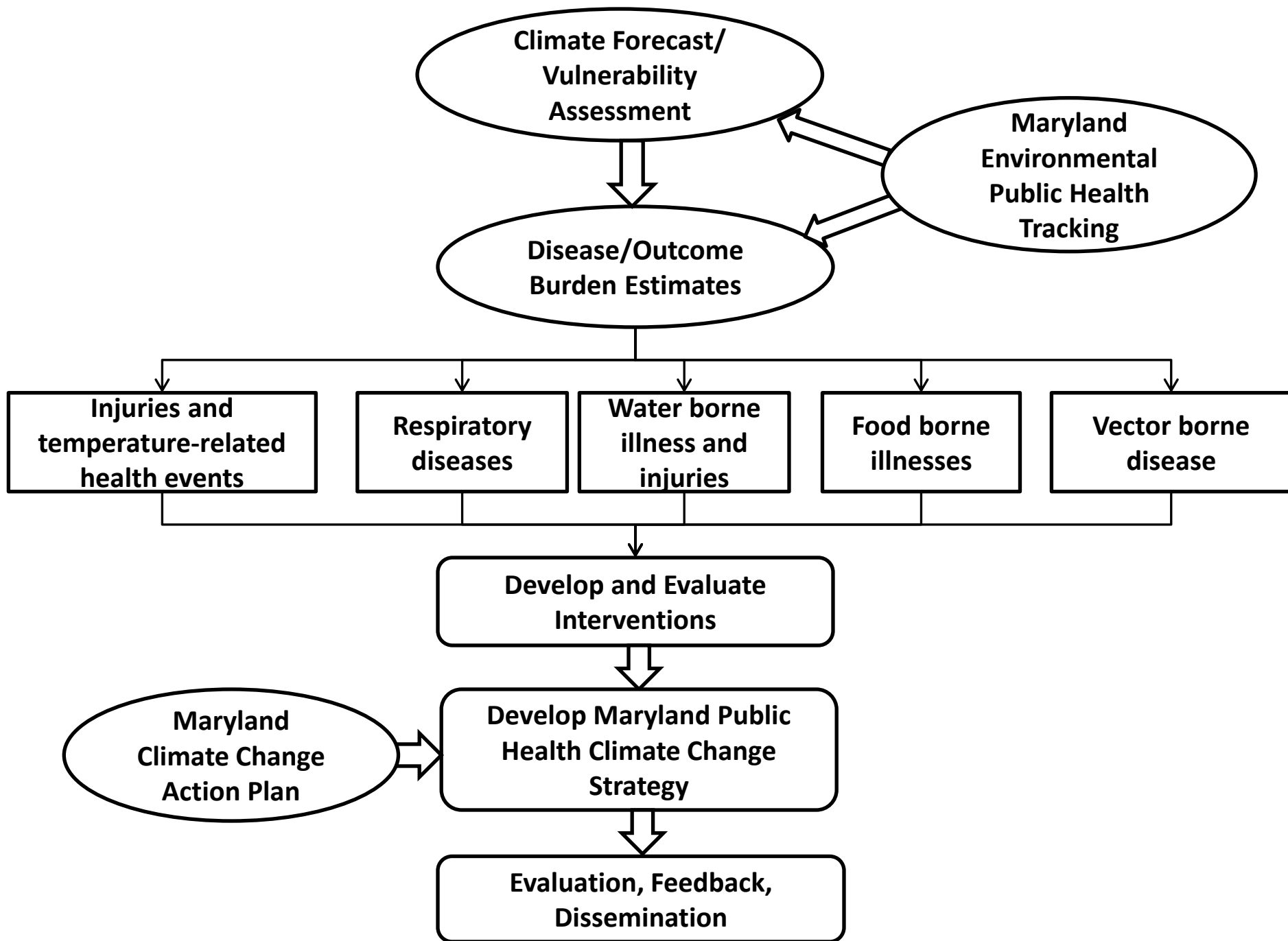


CDC's BRACE Framework



Maryland Public Health Strategy for Climate Change





Maryland Public Health Strategy: Components

- Tools and Resources: Climate-Health Profile
- Evaluation of interventions:
 - Baltimore City, Prince George's County, Washington County, Wicomico County
- Evaluation of Outreach
 - Longitudinal survey of Maryland public attitudes with George Mason University



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Current Results



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Salmonellosis: Temporal Trends of Exceedance Events and Case Distribution by Season

Extreme Temperature
& Precipitation

Incidence Rate

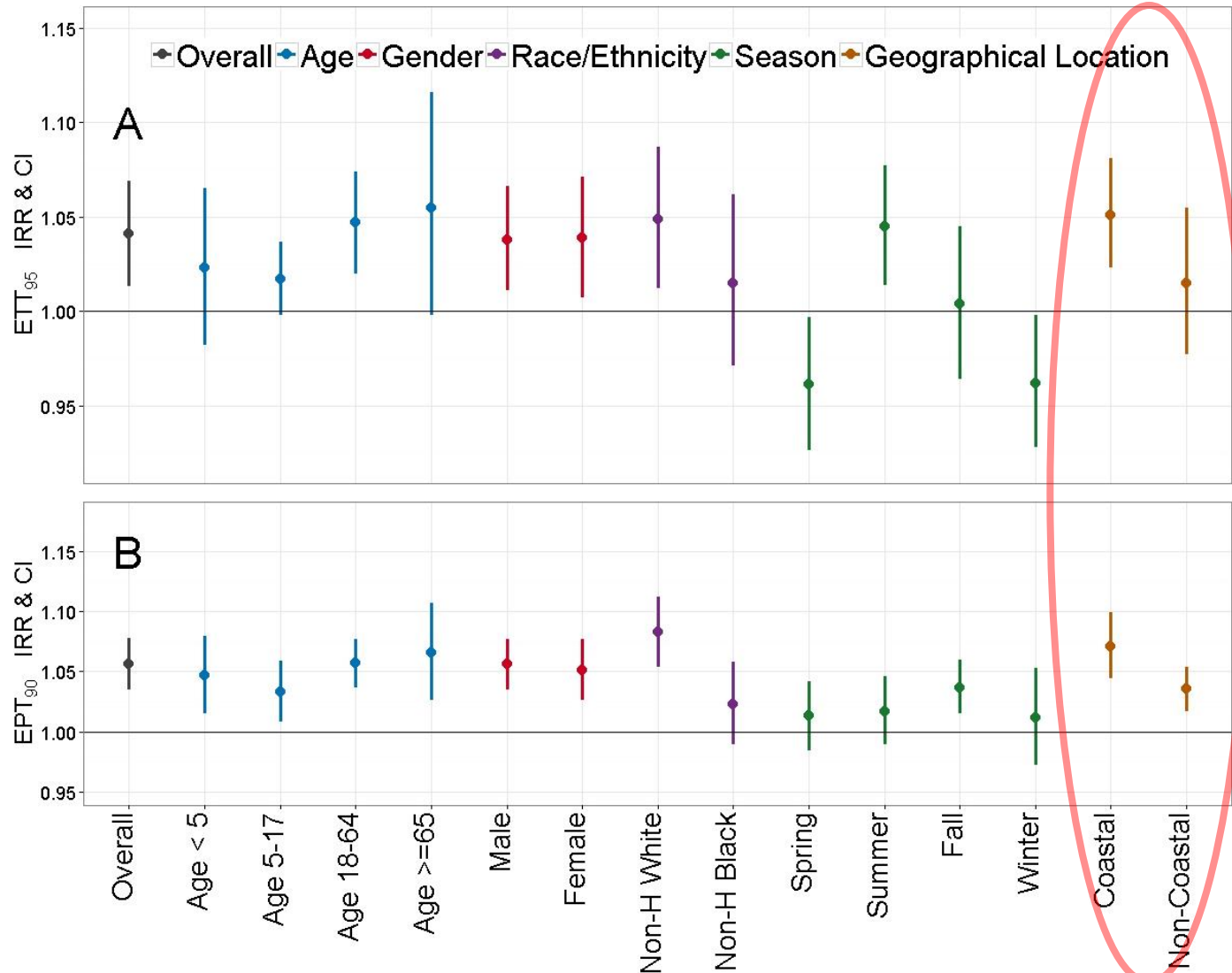
Cases by Season

Cases by Serotype



Salmonellosis: Incidence Rate Ratios w/ 95% CI for Exposure to Extreme Events

IRR (95%CI) for
Temperature



Salmonellosis: Incidence Rate Ratios w/ 95% CI for Exposure to Extreme Events

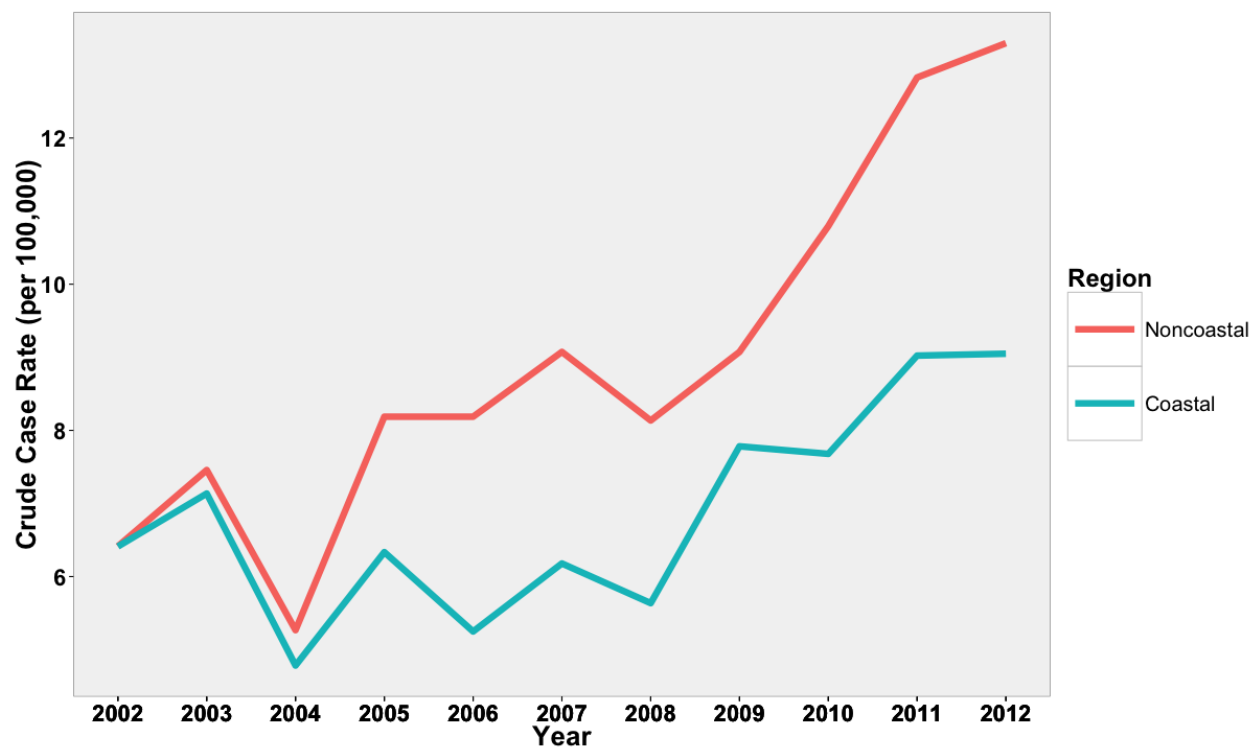
Characteristics		Extreme Temp. (ETT ₉₅)	Extreme Precip. (EPT ₉₀)
Overall Model		1.041[1.013-1.069]	1.056[1.035-1.078]
Season			
	Spring	0.961[0.926-0.997]	1.013[0.984-1.042]
	Summer	1.045[1.014-1.077]	1.017[0.989-1.046]
	Fall	1.004[0.964-1.045]	1.037[1.015-1.060]
	Winter	0.962[0.928-0.998]	1.012[0.972-1.053]
Geographical Location			
	Coastal Counties	1.051[1.023-1.081]	1.071[1.044-1.099]
	Non-Coastal Counties	1.015[0.977-1.055]	1.036[1.017-1.054]

Considerably larger effect observed in coastal counties compared to non-coastal counties

Vehicle Injury: Incidence Rate Ratios w/ 95% CI for Exposure to Extreme Events

Characteristics		Extreme Temp. (ETT ₉₅)	Extreme Precip. (EPT ₉₀)
Overall Model		1.01 [1.00-1.02]	1.23 [1.22-1.24]
Season			
	Spring	1.05 [1.03, 1.07]	1.20 [1.18, 1.21]
	Summer	1.09 [1.07, 1.10]	1.24 [1.22, 1.25]
	Fall	0.88 [0.86, 0.90]	1.32 [1.31, 1.34]
	Winter	0.97 [0.96, 0.99]	1.13 [1.12, 1.15]

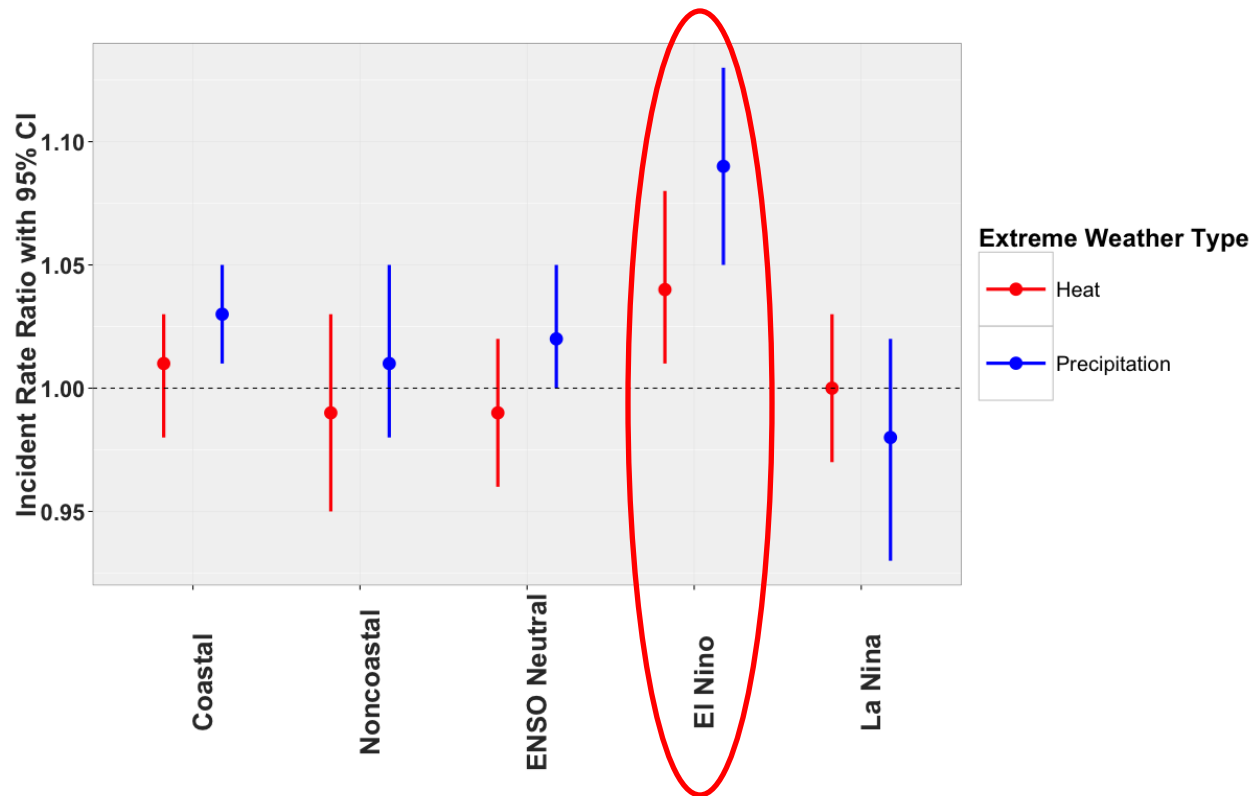
Campylobacter Case Rate



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Campylobacter Incident Rate Ratio



Evaluation and Implementation

- Results of the vulnerability assessment inform the local intervention strategies
- Evaluation of the strategies and the approach
- Survey of Maryland residents
- Implementation of approach & evaluation into overall State strategy



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Outreach and Education

- Survey, evaluation critical to selection of messages
- Use of Environmental Public Health Tracking platform to support outreach and education – public health action



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Summary

- Maryland's Public Health Strategy for Climate Change is an integral part of overall Maryland response to climate change
- The CDC BRACE framework provides a useful approach to the public health strategy
- Critical to use health data to inform decision-making and response



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